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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/533,689

11/28/2005

Peter Farkas Binderup Hansen

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DICKSTEIN SHAPIRO LLP

1177 AVENUE OF THE AMERICAS (6TH AVENUE)

NEW YORK, NY 10036-2714

EXAMINER

HOFFMANN, JOHN M

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

10/08/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/533,689	Applicant(s) HANSEN ET AL.	
	Examiner John Hoffmann	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 15-23 is/are rejected.
- 7) ☒ Claim(s) 14 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/2/05, 8/5/05, 4/22/08</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement filed 5/02/2005 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Although applicant indicates that copies of the cited ISR documents were provided by the International Bureau, there is no indication on the PCT/DO/UO/903 filed 3/10/2006 that such was provided by the IB. See MPEP 609.03.

The information disclosure statement filed 4-22-2008 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

Specification objection

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Objections

Claim 14 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. A claim cannot depend from itself. The claim is not further treated on the merits.

Claim Rejections - 35 USC § 103

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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Claims 1-4, 6-7, 9, 11-13 and 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Juul 2003/0083187 in view of Nakahara 6022514 and optionally in view of Johnson 2300930.

Juul discloses making man-made vitreous fibers with the required phosphorous content at [0051] [0056]. Mineral material using briquettes is melted in a furnace: see [0012] and [0002]. Juul reasonably teaches using sewage sludge ash in the briquettes: see [0012] and [0056] .

Juul does not teach the phosphorous content of the ash nor the "the melt" is directly fiberized

Nakahara discloses that sewage sludge ash typically has at least 4.9% Phosphorous oxide (see col. 1, lines 7-50). It would have been obvious to use a sewage sludge ash with at least 4.9% P_2O_3 , since such is typical for sewage sludge ash, and absent a suggestion from Juul, it would have been obvious to use a typical sludge ash, as compared to more exotic sewage sludges.

It is deemed that Juul reads on the claimed "fiberising the melt", because the broadest reasonable interpretation of "fiberising" is comprising in nature, and thus is open to the Juul steps of quenching, casting then converting to wool, see [0032] and [0051]. Alternatively: Johnson teaches creating wool from melts from animal waste ash. It would have been obvious to form the Juul melt directly into fibers, thus Avoiding the extra steps – and the fuel costs associated with remelting the slag – as is shown to be known by Johnson.

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From MPEP 2144.04

II. ELIMINATION OF A STEP OR AN ELEMENT AND ITS FUNCTION

A. Omission of an Element and Its Function Is Obvious If the Function of the Element Is Not Desired

Ex parte Wu , 10 USPQ 2031 (Bd. Pat. App. & Inter. 1989) (Claims at issue were directed to a method for inhibiting corrosion on metal surfaces using a composition consisting of epoxy resin, petroleum sulfonate, and hydrocarbon diluent. The claims were rejected over a primary reference which disclosed an anticorrosion composition of epoxy resin, hydrocarbon diluent, and polybasic acid salts wherein said salts were taught to be beneficial when employed in a freshwater environment, in view of secondary references which clearly suggested the addition of petroleum sulfonate to corrosion inhibiting compositions. The Board affirmed the rejection, holding that it would have been obvious to omit the polybasic acid salts of the primary reference where the function attributed to such salt is not desired or required, such as in compositions for providing corrosion resistance in environments which do not encounter fresh water.). See also In re Larson, 340 F.2d 965, 144 USPQ 347 (CCPA 1965) (Omission of additional framework and axle which served to increase the cargo carrying capacity of prior art mobile fluid carrying unit would have been obvious if this feature was not desired.); and In re Kuhle, 526 F.2d 553, 188 USPQ 7 (CCPA 1975) (deleting a prior art switch member and thereby eliminating its function was an obvious expedient).

Claims 2 and 4 and 19-21 are clearly met.

Claim 3: 4.9% is 5% when written to one significant digit. Alternatively, it would have been obvious to use the Polymeric ash of Nakahama – since such is also disclosed as being typical.

Claim 6, see [0056]

Claim 7: [0012] of Juul teaches at least 30% inorganic components from sludge. But [0024] discloses 15-20 % is water. And [0018] discloses the uses of "several" waste products. In other words: several different non-virgin rock materials. It would have been obvious to use not more than 25% of at least one non-virgin rock material, depending upon the amounts of waste materials one desired to dispose of. This applies to claim 9 as well.

Claim 11: Juul at [0026] teaches one can store the briquettes. It would have been obvious to store the briquettes for two days or longer, and use as needed, or when required by a factory shut-down.

Claims 12-13: see Table 3 on page 4 of Juul.

Claim 22-23: such are intended use limitations: the resultant Juul product can be used in as only of the claims products.

Claims 5, 8, 10 and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Juul 2003/0083187 in view of Nakahara 6022514 and optionally in view of Johnson 2300930 as applied to claim 1 above, and further in view of Perander 6599388 and Kaneko JP 4-83735.

Perander teaches to make briquettes for mineral wool production (starting at col. 5, line 58) and use materials based on the chemical composition of the fibers. Kaneko teaches using sewage sludge slag to make fibers. Thus it would have been obvious to use a sewage sludge slag in the Juul briquette, depending upon it's cost, chemical make up, what the desired chemical make-up of the fiber is, or the need to dispose of the slag. Although Kaneko does not disclose the use of granulated slag, such would have been obvious – in particular since Juul teaches it is a form of slag that can be used to make fibers.

As to claim 8: it would have been obvious to use as little or as much as needed to be disposed of.

Claim 10: Col. 5, lines 66-67 disclose the use of mineral wool. It would have been obvious to use such – if one had any mineral wool to dispose of. And/or to reuse any waste defective mineral wool from the process.

Claim 15: it would have been obvious to retain as much phosphorous as possible, so as to prevent contaminating the environment.

Claim 16: Johnson teaches using a cupola: first column, line 29. Thus one using the Johnson concept of fiberizing from the melt, would then use the Johnson structure/furnace for doing so.

Claim 17: See the second col. of page 2, starting at line 65: it would have been obvious to tap the "valuable product" if one uses an ash with high iron content.

Claim 18: Examiner takes Official notice that there are many fibers with less than 4 % aluminum. Such would have been obvious, depending upon the desired fiber composition as Perander indicates.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 10 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claim 10: It is unclear whether the period after "waste" signifies that it could be the end of the sentence.

Claim 18 sets forth the amount of aluminum, but then says it is a weight percent of alumina. It is unclear whether it means there is 4% alumina, or that there is 4% aluminum, but is in the oxide form, or something else.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kaneko '451 is cited as evidence that sewage sludge disposal is a known problem..

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272 1191. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

John Hoffmann
Primary Examiner
Art Unit 1791

/John Hoffmann/
Primary Examiner, Art Unit 1791